terraphase engineering

March 1, 2018

U.S. Environmental Protection Agency, Region 9
Water Enforcement Section II
75 Hawthorne Street (ENF 3-2)
San Francisco, CA 94105-3901

Attention: Lawrence Torres

Subject: Submittal of Final Sediment Investigation Report and Draft Ecological Risk Assessment
Sims Group USA Corporation, Redwood City, California

Dear Mr. Torres:

On behalf of our client Sims Group USA Corporation (Sims), Terraphase Engineering Inc. (Terraphase) is pleased to submit this letter and its attachments to the U. S. Environmental Protection Agency (EPA), in satisfaction of Sims' obligations under Paragraphs 18 and 19 of the Consent Decree between Sims and EPA, effective December 1, 2014 (Case 3:14-cv-04209).

Final Sediment Investigation Report

On May 31, 2017, Terraphase submitted to the EPA the Draft *Sediment Investigation Report* ("the Draft Report"), which described the characterization of the marine sediment underneath and proximate to Sims' ship-loading conveyor located at Wharf 3 in the Port (designated the Project Area). The Draft Report recommended the collection and analysis of one additional riprap sediment sample, beyond the furthest sampling locations to the north and south, to improve the understanding of the lateral distribution of metals and polychlorinated biphenyls (PCBs) in the Project Area riprap sediment.[1] The EPA, through email communication, concurred with this recommendation for collection of an additional step-out sample on the north and south end of the riprap area. The step-out samples were collected on June 28, 2017, and analytical results were transmitted to the EPA by email on August 8, 2017.

Sims, Terraphase, and the EPA met on August 28, 2017 to discuss the investigation results and next steps. In a letter dated September 7, 2017, the EPA stated that "the work required by the approved Supplemental Sediment Sampling and Analysis Plan (SSAP) has been completed in accordance with the Consent Decree." Terraphase prepared the attached *Final Sediment Investigation Report* ("the Final Report") to present the comprehensive results of the field investigation activities and laboratory analyses, including the results for the step-out sampling performed on June 28, 2017.

[1] Metals and PCBs are collectively referred to as constituents of concern (COCs).

Sediment Remediation Plan

Based on the results of the approved sediment investigation, Terraphase initiated work on a Sediment Remediation Plan (SRP) described in Paragraphs 18 and 19 of the Consent Decree. The SRP is required to include "an evaluation of various alternatives for removal of scrap metal and PCBs" from the Project Area, except that Paragraph 19 further directs Sims to consider "the potential environmental impacts associated with the disturbance of the sediment," and provides that "Sims may propose to leave the sediments and agglomerated scrap metal in place if supported by the results of an ecological risk assessment." As you are aware from your review of the Draft *Sediment Investigation Report*, there is very little agglomerated metal present in the Project Area.

On December 6, 2017, Sims' outside counsel requested an extension of the deadline for submittal of the SRP until March 1, 2018, to allow additional time for Terraphase to complete its work on the SRP. However, additional relevant information thereafter came to our attention that warranted more detailed consideration of the risk assessment option provided in the Consent Decree. Given that the risk assessment option is clearly outlined in the Consent Decree, Sims retained Windward Environmental, LLC (Windward) to conduct a preliminary "desktop" analysis to determine whether a no-risk scenario could reasonably be established for the site. After evaluating the results of the Draft *Sediment Investigation Report* and other ecological risk assessments in the area, Windward concluded, on a preliminary basis, that a reasonable case could be made. On that basis, Sims opted to engage Windward to conduct a formal ecological risk assessment (ERA). A copy of the Draft ERA is attached. Windward has extensive experience in the assessment of ecological risk at sites in marine and estuarine settings, is well known to EPA, and their work is highly regarded in the ecological risk assessment community.

Draft Ecological Risk Assessment

The ERA results indicate that wildlife populations in the Project Area are not at risk, as predicted by the risk estimation of the maximally exposed representative species. The risk estimates were below levels that would result in unacceptable risk using appropriately conservative site use factors (SUFs) and toxicity reference values (TRVs). The SUF for representative species in the Project Area is low due to the very small size of the site (0.6 acres) as compared with the breeding home range of the lesser scaup (220 acres) and the intertidal marsh habitat areas on nearby Bair and Greco Islands (4,000 acres). The area around Bair and Greco Islands is also a more desirable foraging area for wildlife than the limited footprint of the industrial Project Area. Conservative TRVs for the ERA were selected based on a comprehensive literature search and review.

The ERA evaluated risk due to exposure to sediments in the biologically active zone, which was conservatively defined as the top 0.5 feet of sediment. Benthic invertebrate community exposure to sediments below a depth of 0.5 feet is not expected, and the concentrations of COCs in sediment below that depth were not considered in the ERA. This is a reasonable approach given that Project Area is in a depositional environment. The navigation channel in Redwood Creek has required dredging every two

years since 1965 (HydroPlan 2015[2]). The average annual volume of sediment volume deposited in the Redwood Creek Harbor Channel is approximately 5 million cubic feet. Given an area of approximately 8.8 million square feet, the average sedimentation rate is over 6 inches per year (HydroPlan 2015). Furthermore, the Project Area is tightly constrained by the piles supporting the wharf and other over-water structures, which would be expected to decrease tidal current velocities, creating a low-energy environment conducive to sediment deposition. No vessel traffic occurs shoreward of the wharf, limiting the potential for sediment erosion from vessel propwash scour. The vertical distribution of COCs in Project-Area sediment is consistent with net sediment accretion in the area.

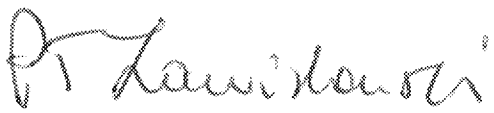
The ERA also concluded that sediment disturbance during remedial activities would likely result in the resuspension of sediment, creating a potentially unacceptable risk that does not now exist. Data from sediment remediation sites has shown that resuspension and release of contaminants has resulted in an increased potential for risk. Therefore, based on the absence of ecological risk under current conditions, and an increased potential for risk during remediation, Windward recommended that the sediments in the Project Area be left in place.

Conclusion

The findings of the ERA indicate that there is no ecological risk to representative species in the Project Area, and that sediment remediation would likely result in sediment resuspension and transport, and, consequently, increased ecological risk relative to current conditions. Consistent with Section V, Paragraph 19 of the Consent Decree, and as supported by the results of the ERA, Sims proposes to leave the sediments in place.

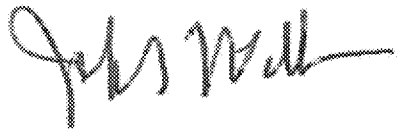
We look forward to discussing the findings with you. If you have any questions, please contact Peter Zawislanski at peter.zawislanski@terraphase.com or 510-645-1858, or Melisa Cohen at Melisa.Cohen@simsmm.com or 510-412-5307.

For Terraphase Engineering Inc.



Peter Zawislanski, PG, CHG
Principal Hydrogeologist

[2] HydroPlan. 2015. Draft integrated feasibility report and environmental impact statement/environmental impact report. Redwood City Harbor Navigation Improvement Feasibility Report and Integrated EIS/EIR. Prepared for US Army Corps of Engineers, San Francisco District. HydroPlan LLC, in collaboration with GAIA and Moffatt and Nichol.



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Principal Geologist

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Enclosures: *Final Sediment Investigation Report*, Terraphase Engineering Inc., March 1, 2018
Draft Ecological Risk Assessment, Windward Environmental LLC, March 1, 2018